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Tyrrell, Timothy, Paris, Cody Morris ORCID logo ORCID: <https://orcid.org/0000-0002-0339-2471>
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Evaluating Tourism Community Preferences

Timothy Tyrrell

timt@asu.edu

Cody Morris Paris

Cody.paris@asu.edu

Mallory Casson

mcasson@asu.edu

School of Community Resources and Development
Arizona State University
411 N. Central Ave., Suite 550
Phoenix, AZ 85004-0690

Abstract

A short online survey of Kingman Arizona residents included two approaches for determining the relative importance of social, cultural, environmental and economic attributes to community quality of life. A simple multi-attribute choice approach gave noticeably different results from a standard independent attribute ranking approach and lead researchers to recommend socially oriented tourism development projects over economically oriented ones.

Keywords: Community Preferences, Multi-attribute Surveys, Quality of Life

It is common to measure attitudes and preferences of various community residents using independent Likert scales (Andriotis & Vaughan, 2003; Andereck & Vogt, 2000; Gursoy, Jurowski, & Uysal, 2002; Allen, Hafer, Long, & Perdue, 1993). In the summer of 2009 we conducted a survey in Kingman, Arizona in order to measure residential preferences to be used as relative importance weights on sustainability indicators, to create a sort of Environmental Performance Index (Yale Center for Environmental Law and Policy, 2008) unique to Kingman. Results generally supported previous findings about our ability to quantify the relative importance of community attributes to residents.

An online survey was targeted at recent high school graduates to determine their vision for the future of Kingman and the role tourism might play in achieving that vision. This was part of a larger study to quantify the relative importance of the quality of life dimensions in using conjoint analysis to quantify the triple bottom line. (Tyrrell, et al, 2009). The Kingman application of our method used a streamlined experimental design and a quite simple analytical method. We are attempting to develop a practical but simple method for evaluating local preferences for tourism development.

In the conduct of our study we discovered an interesting illustration of the differences in importance weights measured when using multi-attribute choices instead of using single attribute rankings. These empirical differences were sufficient to make us alter our tourism development proposals for Kingman away from those that emphasized economic development and toward

those that emphasized social development. In this note we briefly describe our procedure, calculation and recommendations. We invite comments and encourage research along these lines with the hope that it will aid future tourism development planning.

For this study we assumed a simple linear index of four general dimensions of community quality of life where the coefficients reflect their relative importance.

$$I = b_S S + b_C C + b_N N + b_E E$$

where

I is an index of the quality of life according to resident preferences,

and its four dimensions were described in the survey instrument as:

S = Social opportunities (events and places where I can be with friends)

C = Cultural qualities (characteristics of people and things that are unique to Kingman)

N = eNvironmental qualities (natural resources, landscapes and scenery I can use)

E = Economic opportunities (good paying jobs for me, my family and friends)

Our questionnaire first asked respondents to rank from 1 to 4 the four dimensions defined by the above attributes “according to their importance” (1 being highest). From the 70 responses to our online survey we calculated the percentage of persons who ranked each dimension first (17%, 9%, 12% and 62% for the four dimensions in order of the above). These percentages add to unity and provided a simple set of weights (the b ’s of the equation) as shown in the first numeric row of Table 1 below.

We also calculated the average rank of each dimension (2.54, 3.06, 2.73 and 1.67, respectively) and transformed them into a set of weights that also added to unity ([4-average rank]/6). This second set of weights is shown in the second row of the table.

Table 1 Alternative Importance Weight Estimates for Quality of Life in Kingman, AZ

	<u>Social</u>	<u>Cultural</u>	<u>Environmental</u>	<u>Economic</u>
Portion Ranked # 1	0.17	0.09	0.12	0.62
(4-Average Rank)/6	0.24	0.16	0.21	0.39
Multi-attribute formula	0.56	0.07	0.06	0.30

The third set of weights was based on three separate questions that asked respondents to choose the better of two future scenarios for Kingman. Each one involved mixed high and low levels of the four attributes. The ten-item survey instrument was designed to be as short as possible to encourage responses and fit within free internet survey limitations. Answers to questions 4-6 of the survey provided the data for the third set of weights. These questions were posed as follows:

“Suppose you could choose between two futures for Kingman. In each of the following comparisons, the four things above are given either “high” or “low” values. Pick future A or B in each of the following.

4. Future A or B?	Social <u>Opportunities</u>	Cultural <u>Qualities</u>	Environmental <u>Qualities</u>	Economic <u>Opportunities</u>
A.	High	High	Low	Low
B.	Low	Low	High	High
5. Future A or B?	Social <u>Opportunities</u>	Cultural <u>Qualities</u>	Environmental <u>Qualities</u>	Economic <u>Opportunities</u>
A.	High	Low	Low	High
B.	Low	High	High	Low
6. Future A or B?	Social <u>Opportunities</u>	Cultural <u>Qualities</u>	Environmental <u>Qualities</u>	Economic <u>Opportunities</u>
A.	High	Low	High	Low
B.	Low	High	Low	High

These scenarios were designed so that the differences in quality of life attributes would be orthogonal and that the information would be concentrated on estimation of the main effects. We sacrificed measuring interactions between attributes. The high values were coded as 1's and the low values were coded as 0's so that the lowest possible index would be 0 and the highest value would be the sum of the weights. By constraining the sum to unity and equating the index to the proportion of the respondents that chose the A scenario in each of the three questions ($w = .27, .72, \text{ and } .26$) a unique set of importance weights that also add to unity was calculated using the formulas:

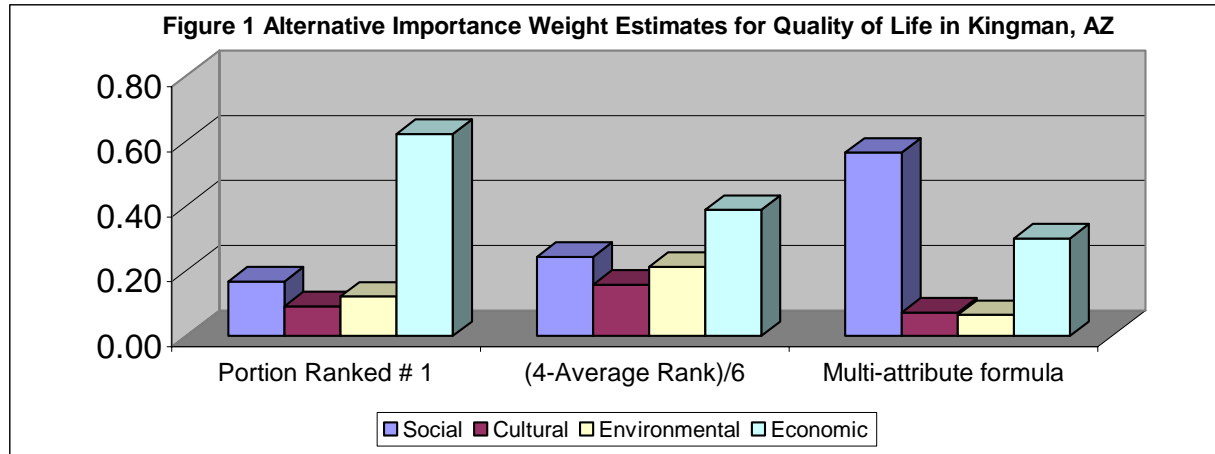
$$b_S = (1 + w_4 + w_5 + w_6) / 4$$

$$b_N = (1 - w_4 - w_5 + w_6) / 4$$

$$b_C = (1 + w_4 - w_5 - w_6) / 4$$

$$b_E = (1 - w_4 + w_5 - w_6) / 4$$

The importance weights derived from the multi-attribute formula are shown in the last row of Table 1 and illustrated together with the other weight estimates in Figure 1. The left-most group of bars in the figure highlights the great importance of the economic dimension indicated by the by its high percentage of first place ranks (62%) while other three dimensions are given low importance. It was not surprising that the first concern for residents during the recession would be for economic opportunities.



The second group of bars shows weights with more similar size across the dimensions, ranging from .16 to .39. This is because the economic dimension, while still given the highest average weight was ranked lower than several other dimensions by some respondents. It also becomes evident that respondents had more mixed opinions than was suggested by first place ranks alone.

The multi-attribute questions and formula provides a strikingly different pattern of relative weights. In the right-most group of bars the social dimension appears as most important, with the economic dimension as second and cultural and environmental dimensions as the distant third and forth most important.

Our simple explanation of these different results is that the independent rankings and multi-attribute choices measured different things. We expected some differences because of this, but not changes in the relative importance of the quality of life dimensions. The questions underlying the “multi-attribute formula” weights made specific reference to the future of Kingman, while the ranking of attributes did not. Thus, the “multi-attribute formula” results would appear to be more related to longer term preferences and the ranking approaches more related to current needs. In addition, the multi-attribute approach was based on the somewhat more realistic question of choosing a multi-attribute place to live rather than the abstract notion of ranking these attributes independently of one another. Consequently we have more confidence that the multi-attribute weights reflect the long term goals of Kingman residents for planning purposes.

The result from the Kingman survey that the social dimension of community quality of life outweighed the economic dimension made us re-evaluate our proposed tourism planning proposals. In the end we proposed two socially-focused projects that would also bring about economic opportunities: the establishment of an international softball tournament based on a long history of popular local softball leagues and the development by local high school students of a series of podcasts to describe the social importance of historical attractions along Route 66 to travellers. We dropped the proposals focussed on developing new hospitality services and expanding promotional efforts.

Community tourism researchers seeking local preferences should consider the multi-attribute choice approach as a complement to independent attribute rankings. As shown above, complex

conjoint measures are not required. A few carefully designed questions and a simple formula can provide important, and possibly unexpected insights about local preferences.

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